Press release

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In at the deep end - the Met Office deploys its first Argo robot floats

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The Met Office has arranged the deployment of five data-gathering robot floats as part of an international oceanographic programme. The floats were deployed in the Irminger Sea, south-west of Iceland, and another five floats will be deployed in the same region in March. These floats, together with four surviving research floats deployed by Southampton Oceanography Centre in the same area in October 1996 and still providing data, mark the start of the UK's contribution to the programme known as Argo.

Argo will grow into a global array of 3,000 free-drifting floats. Each Argo float will drift at a 'parking depth' of about 2,000 m, returning to the ocean surface once every ten days, measuring temperatures and salinities (saltiness) as it rises, and transmitting its measurements to meteorological and oceanographic centres via a satellite link. Having done that, the float sinks back to its parking depth to drift with the currents for another 10 days. Each float is expected to be capable of making as many as 150 cycles and operate for up to five years.

Jon Turton, Argo Programme Manager at the Met Office, said: "Over the next five years Argo will become a vital system for oceanographers and meteorologists in their search for ever-more accurate predictions of climate change. The ocean data that Argo provides will also lead to better long-term weather forecasts for many areas of the world that are vulnerable to floods and drought."

The implementation of Argo will be the culmination of many years of research and development since the concept of free-drifting floats was originally developed in the UK in the mid-1950s. It is a truly international project, endorsed by the World Meteorological Organization and Intergovernmental Oceanographic Commission, and is being supported by the United Kingdom, the United States, Canada, France, Germany, Spain, Japan, Korea, India, Australia, New Zealand and the European Union, whilst Norway, China, Indonesia and Brazil have all expressed interest in contributing.

Recent climate simulations made by the Met Office's Hadley Centre for Climate Prediction and Research have suggested that a freshening of the intermediate waters in the southern Indian Ocean is a signal of man-made climate change. Therefore, during 2001/2002 around 30 floats will be deployed in the southern Indian Ocean. Floats will also be deployed in the South Atlantic, the eastern Mediterranean and the Arabian Sea. A number of floats have also been set aside for the Norwegian Sea and the north-east Atlantic, regions for which there is a requirement for real-time data, and will be deployed if there is a shortfall of other countries' deployments of Argo floats in these areas. The UK is also seeking to establish at the British Oceanographic Data Centre (BODC), with funding from the Natural Environment Research Council (NERC), a Regional Argo Data Centre for the Southern Ocean.

Notes:

1. The UK's contribution to Argo is being funded by the Department of the Environment, Transport and the Regions, the Ministry of Defence and NERC, and is managed on their behalf by the Met Office. Southampton Oceanography Centre (SOC), BODC and the UK Hydrographic Office are also participating in the project. From the initial 14 floats this contribution will grow to a level where some 50 floats will be deployed each year, thus maintaining about 150 to 200 UK Argo floats in the water at any time.

2. For more information on Argo visit http://www.metoffice.gov.uk/research/ocean/argo

3. For information about SOC floats see http://www.soc.soton.ac.uk/JRD/HYDRO/shb/palace.html

4. The floats were deployed from an Icelandic vessel (m/v Bakkafoss) en route from Reykjavik to Argentia (Newfoundland).

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